

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (Canceled).

Claim 25 (Currently Amended). An information recording method of recording data on an information recording medium having a data recording portion and management information recording portion in which main and back-up management files are to be recorded, the information recording method comprising the steps of:

recording a video file or an audio file in the data recording portion, the video file including video data, the audio file including audio data, the video data or the audio data comprising object units and being managed by a program;

recording original program chain information in the main and back-up management files, the original program chain information designating a reproduction order of a part of cells representing the video data in the video file or the audio data in the audio file; and

recording new chain information as user-defined program chain information in the main and back-up management files, the new chain information designating a reproduction order of other part of the cells, which is different from a fixed reproduction order designated by the original program chain information,

wherein the cells are represented by cell information, which is partially designated by the original program chain information or user-defined program chain information, in the main and back-up management ~~files~~ files, the main management file and the back-up management file are updated by editing user-defined program chain information of the main management file and that of the back-up management file, and ~~[[a]]~~ the reproduction order indicated by the original program chain information is maintained even when the user-defined program chain is edited.

Claim 26 (Previously Presented). An information recording method according to claim 25, further comprising a step of recording cell type information distinguishing a movie cell type and a still picture cell type from each other, in an area in the cell information,

wherein the cell information further includes information indicating presentation start time of the cell (C\_V\_S\_PTM) and presentation end time of the cell (C\_V\_E\_PTM), where the C\_V\_S\_PTM and the C\_V\_E\_PTM satisfy the following conditions:

(1) in a cell in the original program chain, the C\_V\_S\_PTM is required to fall into first four object units of the corresponding video object, and the C\_V\_E\_PTM is required to fall into the last four object units of the corresponding video object; and

(2) in a cell in an user-defined program chain, the following relationship is required to be satisfied:

$$O\_C\_V\_S\_PTM \leq C\_V\_S\_PTM < C\_V\_E\_PTM \leq O\_C\_V\_E\_PTM$$

where O\_C\_V\_S\_PTM and O\_C\_V\_E\_PTM are presentation start time and end time of the original cell which corresponds to the object referred to by the cell in the user-defined program chain.

Claim 27 (Currently Amended). An information recording apparatus for recording information on a recording medium, the information apparatus comprising:

a video or audio file recording unit that records a video file or an audio file in the data recording portion, the video file including video data, the audio file including audio data, the video data or the audio data comprising object units and being managed by a program;

an original program chain recording unit that records original program chain information in the main and back-up management files, the original program chain

information designating a reproduction order of a part of cells representing the video data in the video file or the audio data in the audio file; and

a new chain information recording unit that records new chain information as user-defined program chain information in the main and back-up management files, the new chain information designating a reproduction order of other part of the cells, which is different from a fixed reproduction order designated by the original program chain information,

wherein the cells are represented by cell information, which is partially designated by the original program chain information or user-defined program chain information, in the main and back-up management ~~files~~ files, the main management file and the back-up management file are updated by editing user-defined program chain information of the main management file and that of the back-up management file, and ~~[[a]]~~ the reproduction order indicated by the original program chain information is maintained even when the user-defined program chain is edited.

Claim 28 (Previously Presented). An information recording apparatus according to claim 27, further comprising a cell type information recording unit that records cell type information distinguishing a movie cell type and a still picture cell type from each other, in an area in the cell information,

wherein the cell information further includes information indicating presentation start time of the cell (C\_V\_S\_PTM) and presentation end time of the cell (C\_V\_E\_PTM), where the C\_V\_S\_PTM and the C\_V\_E\_PTM satisfy the following conditions:

(1) in a cell in the original program chain, the C\_V\_S\_PTM is required to fall into first four object units of the corresponding video object, and the C\_V\_E\_PTM is required to fall into the last four object units of the corresponding video object; and

(2) in a cell in an user-defined program chain, the following relationship is required to be satisfied:

$$O\_C\_V\_S\_PTM < C\_V\_S\_PTM < C\_V\_E\_PTM < O\_C\_V\_E\_PTM$$

where O\_C\_V\_S\_PTM and O\_C\_V\_E\_PTM are presentation start time and end time of the original cell which corresponds to the object referred to by the cell in the user-defined program chain.

Claims 29-30 (Cancelled).

Claim 31 (Currently Amended). An information reproducing method for reproducing information from an information recording medium,

said information recording medium comprising:

a lead-in area located near a center position of rotation of the information recording medium; and

a data area around the lead-in area, the data area divided into logical sectors, each of said logical sectors having a size of 2,048 bytes, the logical sectors being assigned logical sector serial numbers, a part of said logical sectors corresponding to logical blocks assigned logical block numbers respectively, wherein said data area comprises;

a video file or an audio file in the data area ~~recording portion~~, the video file including video data, the audio file including audio data, the video data or the audio data comprising object units and being managed by a program;

original program chain information in ~~the~~ main and back-up management files, the original program chain information designating a reproduction order of a part of ~~cell~~ cells representing the video data in the video file or the audio data in the audio file; and

new chain information as user-defined program chain information in the main and back-up management files, the new chain information designating a reproduction order of other part of the cells, which is different from [[a]] the fixed reproduction order designated by the original program chain information,

wherein the cells are represented by cell information, which is partially designated by the original program chain information or user-defined program chain information, in the main and back-up management files ~~files~~, the main management file and the back-up management file are updated by editing user-defined program chain information of the main management file and that of the back-up management file, and [[a]] the reproduction order indicated by the original program chain information is maintained even when the user-defined program chain is edited, the reproducing method comprising:

reading the video management information, and

accessing the video file or the audio file and reproducing data included in the video file or audio file.